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ABSTRACT

The purpose of this study was to examine the extent to which the structure or patterning of supervisor and supervisee verbal interaction during supervision is enhanced or moderated by: (1) the problem severity (degree of impairment and level of distress of the client); (2) the anxiety of the supervisee and supervisor toward the client and toward supervision (i.e., toward each other); (3) self-ratings of competence by the supervisee and supervisor; (4) amount of supervision provided to the supervisee; and (5) supervisors' years of supervision experience. Structure (i.e., communication and relationship patterning) was operationalized as the degree of "non-randomness" (absence of entropy) in the verbal responding of the supervisor and supervisee. Forty-four actual counseling supervision dyads were analyzed through transcriptions of taped supervisory sessions. Multivariate procedures were used to examine factors contributing to the structure of supervisory sessions and the structuring influences of the supervisor and supervisee. Results suggest that supervisor-supervisee interaction may be less structured than generally thought, and that anxiety, skill, and experience variables play a negligible role in influencing the amount of structure that does occur. Supervisor sex was found to be a reliable predictor of whether the supervisor or supervisee had the greater influence on the supervision structure. Contains 36 references. Five tables present statistical analysis results. (Author/JBJ)

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The Structure of Supervisor-Supervisee Interactions

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Abstract

Having noted that, "(i)nherent in most models of counselor development is the assumption that the amount of structure provided by the supervisor is one of the most important dimensions for enhancing counselor growth" (Tracey et al, 1989, p. 336), the purpose of this study was to examine the extent to which the structure or patterning of supervisor and supervisee verbal interaction during supervision is enhanced or moderated by (a) the problem severity (degree of impairment and level of distress of the client), (b) the anxiety of the supervisee and supervisor toward the client and toward the supervision (i.e., toward each other), (c) self-ratings of competence by the supervisee and supervisor, (d) amount of supervision provided to the supervisee, and (e) supervisors' years of supervision experience. "Structure" (i.e., communication and relationship patterning) was operationalized as the degree of "non-randomness" (absence of entropy) in the verbal responding of the supervisor and supervisee (see Lichtenberg & Paolo, 1985)--an approach used in previous studies of the interactional structure in counseling (cf. Claiborn & Lichtenberg, 1987; Lichtenberg & Knox, 1991). Forty-four actual counseling supervision dyads were analyzed using transcriptions of taped supervisory sessions. Multivariate procedures were used to examine factors contributing to the structure of supervisory sessions and the structuring influences of the supervisor and supervisee. Results suggest that supervisory-supervisee interaction may be less structured than generally thought, and that anxiety, skill, and experience variables play a negligible role in influencing the amount of structure that does occur. Supervisor sex was found to be a reliable predictor of whether the supervisor or supervisee had the greater influence on the supervision structure.

The Structure of Supervisor-Supervisee Interactions

Introduction

Clinical supervision is an intervention that is central to the preparation of counseling psychologists, clinical psychologists, social workers and psychiatrists. Researchers have shown that supervision is related to the level of skill counseling trainees attain, regardless of the amount of experience they accrue (e.g., Hill, Charles & Reed, 1981). In addition, Bradley and Olsen (1980) found that psychology students' felt-competence as therapists related more strongly to the total number of hours of formal supervision they had received and to the total number of supervisors they had than to any other of a number of possible correlates (e.g., the total number of hours of counseling conducted, amount of counseling coursework).

Although a number of theoretical perspectives on the clinical supervisory process have been offered (cf. Holloway, 1992; Russell, Crimmings & Lent, 1984; Stoltenberg, 1981; Stoltenberg & Delworth, 1987), research-based knowledge regarding clinical supervision has been limited--characterized by unrelated fragments of research that generally have been atheoretical (Hart, 1982; Leddick & Bernard, 1980)--this despite the pervasiveness and importance of the supervisory process. Studies that do exist on supervision report little significant data and little information regarding research procedures. In an article that has had a positive impact on the developing supervision literature, Holloway and Hosford (1983) argued for a science of supervision, noting that the scientific endeavor of supervision research should be progressive and should proceed through the stages of (a) descriptive observation of supervision, (b) identification of relevant supervision variables (and relationships among them), and (c) development of theory based on the empirically derived evidence about the variables and their relationships. It is with respect to (a) and (b) that this study addressed itself.

Specifically, the purpose of this study examined the extent to which supervisor and supervisee communication and relationship patterns are moderated by (a) the problem severity

(degree of impairment and level of distress of the client), (b) the anxiety of the supervisee and supervisor toward the client and toward the supervision (i.e., toward each other), (c) self-ratings of supervisee competence by the supervisee and supervisor, (d) amount of supervision provided to the supervisee, and (e) supervisors' years of supervision experience. Of secondary interest in this study was investigation of the relationship between supervision structure and ratings by supervisors and supervisees of the quality (depth and smoothness) of their supervisory session together. Related to this secondary interest was the effect of participant (supervisor/supervisee) influence over the structure of the supervision on the participants' ratings of session quality.

Because supervision is largely a verbal endeavor, focus of the study was on the verbal discourse between supervisors and supervisees during supervisory sessions. Holloway (1982) has argued that "certain repetitive patterns of verbal behavior occur in the supervisory interview" (p. 309). She further asserted that "little empirical attention has been given to the reciprocal influence that occurs between supervisor and trainee" (p. 309). In making these suggestions, she was suggesting that an interactional paradigm (cf. Claiborn & Lichtenberg, 1989) is appropriate for investigating and describing the behaviors of supervisors and supervisees. A fundamental tenet of this paradigm is that the (verbal) interactions (e.g., between supervisor and supervisee), although probabilistic are non-random phenomena. The responses of the supervisor and supervisee influence the occurrence and non-occurrence of responses of the other and generate "patterns" of interactional/supervisor responding. It is the degree of influence among the various supervisor/supervisee responses that creates "order" or "structure" or "organization" (i.e., non-randomness) within their interaction. Tracey et al. (1989) have noted that, "Inherent in most models of counselor development is the assumption that the amount of structure provided by the supervisor is one of the most important dimensions for enhancing counselor growth" (p. 336; emphasis added). This assumption has been noted by others as well (e.g., Hogan, 1964; Stoltenberg, 1981; Stoltenberg & Delworth, 1987).

In the present study, "structure" (i.e., communication and relationship patterning) was operationalized as the degree of organization or "non-randomness" (absence of entropy) in the verbal responding of the supervisor and supervisee (see Lichtenberg & Paolo, 1985). Such an

approach has been used in studies of the interactional structure of counseling dyads (Claiborn & Lichtenberg, 1987; Lichtenberg & Tyndall, 1985; Lichtenberg, 1985) and of group counseling (Lichtenberg & Knox, 1991). Based on previous theorizing (e.g., Stoltenberg & Delworth, 1987) and research (e.g., Tracey, et al., 1989) that have suggested that trainees desire more structure in conditions of greater anxiety (e.g., when the context of counseling arouses anxiety, when the client presents "in crisis," when the trainee/supervisee is relatively inexperienced), it was expected that supervisee anxiety about working with the client and the supervisor, perceptions of client impairment, self-reported technical and conceptual skills as a counselor, and experience with the supervisor would individually and additively would contribute to the prediction of the response structure of supervisory sessions. Further, it was expected that supervisor anxiety about the supervisee's client and about the supervision, perceptions of the client impairment and of the supervisee's technical and conceptual skills as a counselor, experience as a supervisor, and experience with the supervisee, also would contribute to the structure of supervision sessions.

Additionally, the degree of influence/structure individually provided or created by the supervisor and supervisee was studied using the same approach. In these analyses, the sex-pairings of the supervisor and supervisee were studied to see how (if at all) these might affect the distribution of influence over the structure of the supervisory sessions. Base on previous research on relational communication patterns in counseling (Heatherington & Allen, 1984), it was expected that male supervisors, regardless of the sex of the supervisee, would evidence more influence over the structure of supervisory sessions than would female supervisors.

Method

Participants

Participants in the study were 44 supervisor and supervisees in counseling supervision dyads drawn from a national sample of university and college counseling centers. The sample included male and female supervisees in same-sex and mixed-sex dyads. Supervisors were advanced doctoral students or mental health professionals who already had obtained state licensure. Supervisees were counselors-in-training from a variety of career fields and training levels (e.g., counseling and clinical psychology, social work, family and child counseling).

Twenty-three (52%) of the supervisors were female and 21 (48%) were male; 82% were White, 11% were African-American, 2% were Hispanic, and 5% were Asian. Twenty-eight (64%) of the supervisees were female, 16 (36%) were male; 75% were White, 11% were Hispanic, 7% were Asian, and 5% were Native American or African-American.

Measures

Data for analysis were derived from two sources: (a) supervisor and supervisee responses to a supervisor and supervisee research questionnaire developed by Goodyear and McCormick (McCormick, 1993), and (b) audiotapes of supervision sessions which already had been collected and transcribed as a part of an earlier study (McCormick, 1993). Appropriate permissions to use the tapes and their transcriptions for further research had been secured from the supervisor/supervisee participants at the time of the initial study.

Supervisee/Supervisor Research Questionnaire. The Supervisee Research Questionnaire (SRQ-E) and the Supervisor Research Questionnaire (SRQ-R) are parallel self-report measures which ask for demographic information on the participants and their rating and perceptions of salient aspects of the supervision session and of the client and counseling session which are the focus of the supervision. [Copies of these questionnaires are available from the authors.] As noted earlier, of particular focus in this study were: (a) client problem severity, i.e., the degree of impairment and level of distress of the client being discussed (as perceived by the supervisor and the supervisee/counselor), (b) the anxiety of the supervisee and supervisor individually toward the client and toward the supervision (i.e., toward each other), (c) ratings of supervisee competence (technical and conceptual skill) by the supervisee and supervisor, (d) amount of supervision (provided to the supervisee), and (e) supervisor's years of supervision experience. Supervisor/supervisee self-reported levels of perceived client distress, anxiety felt for the client, and technical and conceptual skill levels (competence) were rated on a series of 7-point Likert-type scales (see McCormick, 1993).

The short form of the Session Evaluation Questionnaire (**SEQ**; Stiles & Snow, 1984) was added as part of these two parallel forms. The SEQ short form consists of 12 pairs of bipolar adjectives (e.g., comfortable/uncomfortable, weak/powerful) to which the participant indicates

on a 7-point continuum which is the most descriptive of his or her assessment of the session's impact. The ratings are used to rate the session on Depth and on Smoothness.

Interpersonal Communication Rating Scale. The Interpersonal Communication Rating Scale (**ICRS;** Strong, Hills, & Nelson, 1988) is a verbal response coding system which is used to classify interpersonal behavior (verbal responses) into eight mutually exclusive and exhaustive categories based on their combined degrees of expression of (a) dominance-submissiveness (status) and (b) hostility-friendliness (affiliation). The behaviors are arrayed along the two dimensions to form a circumplex model of interpersonal behavior, (Strong et al. 1988). These eight behavior categories are:

Leading: communicator shows that he or she is capable, competent, confident, yet warm and friendly.

Self–enhancing: communicator shows self–satisfaction, superiority, autonomy, and is explicitly self–promoting.

Critical: communicator shows impatience with, criticalness of, and disdain for the other; behavior can discount the behavior of the other.

Distrustful: communicator shows resentment, distrust, resistance and brooding.

Self–effacing: communicator shows self–doubt, self–criticism, inability, and helplessness.

Docile: communicator shows a lack of ambition, involvement, and affect; also shows passive compliance.

Cooperative: communicator shows receptiveness, liking, respect, and trust.

Nurturant: communicator shows fairness, trustworthiness, considerateness, and empathy.

For purposes of coding, a verbal response (or communication unit) was defined as "a person's communication uninterrupted by another's verbal utterance" (Strong et al., 1988, p. 4)--also referred to as a "transaction between two consecutive verbal messages" (see Ericson & Rogers, 1973, Sluzki & Beavin, 1977). Communication units are rated as independent entities. In rating a particular unit, what precedes and follows it are not to be considered. Communication

units may contain several behaviors, but the predominant one should be assigned to the category unit.

Measurement of Structure

Consistent with previous writing (e.g., Claiborn & Lichtenberg, 1989; Lichtenberg & Knox, 1991), and drawing upon Shannon and Weaver's (1949) mathematical theory of communications (also see Attneave, 1959; Penman, 1980), supervision session structure was operationalized as the degree of redundancy in the verbal interactions (conditional responding) of supervisors and supervisees. The more structured the interaction, the more redundant and less random the verbal exchanges of the supervisor and supervisee. This structure is a function of the contingent (conditional) and unconditional responding of both the supervisor and supervisee.

For the present study, the following indices of structure were computed (see Attneave, 1959; Lichtenberg & Knox, 1991 for computational formulae): (a) Entropy (H)--a measure of the degree of randomness or disorganization of the various supervisor/supervisee interactive responses, (b) Maximum entropy (H_{max})-- the entropy value for a set of events (responses) in which the various responses are all equally likely--that is, in which randomness and disorganization among responses would be at a maximum, (c) Relative entropy (RE)--the ratio of the actual entropy (disorganization) in the various supervisor/supervisee responses to the maximum possible degree of disorganization among those responses ($RE=H/H_{max}$), (d) Redundancy (R)--an index of response patterning, computed as the proportional complement of relative entropy (R=1-RE). For the present study, this last index of response redundancy served as the primary index response patterning/structure. The other indices were computed as necessary for the determination of response redundancy.

Also computed was an index of response ambiguity--an index of the decrease in the randomness of a speaker's response, given knowledge of the response of the immediately preceding response of the other speaker (see Attneave, 1959 for computational formulae). This last index was used to provide an index of the relative influence the supervisor and supervisee had on the responding of the other, thereby allowing determination of who "influences" whom the most (by influencing the structure of the interaction). "To the extent that one speaker's

responses are more predictable (less random) than the preceding speaker's responses...the antecedent speaker evidences a greater constraint over the occurrence of the other's response. That is to say, the second speaker has less 'freedom of choice' ... than the first in 'selecting' a next response (Lichtenberg & Paolo, 1985, p. 40). Differences in the degree of predictability of speakers' responses therefore allow determination of who "sets the structure" for the interaction (Castellan, 1979; Gottman, 1979; Wampold, 1984). For purposes of analyses in this study, the ambiguity [uncertainty] index for the supervisee's responding (given the supervisor as the antecedent speaker) was subtracted from the ambiguity [uncertainty] index for the supervisor's responding (given the supervisee as the antecedent speaker). In light of the logic previously presented for the use of these ambiguity indices (see Lichtenberg & Paolo, 1985), if the resulting difference score were positive, it suggested that the supervisee's responding was less predictable than that of the supervisor and that the supervisee had more influence over the structure of the session than did the supervisor. The reverse was true if the resulting difference score were negative.

Procedures

Ninety-eight university and college counseling center training directors who were listed in the Association of Professional Psychology Internship Centers (APPIC) directory and/or the Association of Counseling Center Training Agents (ACCTA) directory were contacted by letter which included information about this study, along with a request for permission to individually contact by mail both trainees and supervisors to request their participation in this research project. If the training director agreed, s/he was asked to submit a list of trainees and their respective supervisors at the center during the following semester. It should be noted that all supervisory dyads were previously established according to the policies of the particular counseling center. Twenty–six training directors responded favorably by providing names of prospective participants. One site eventually was lost to this study after its ethics committee did not approve participation.

Using information provided by the training directors, a letter was written to individual supervisors and trainees requesting their participation in this research study. At that time they

were provided information about the manner in which data would be handled. Trainees and supervisors independently were asked about their willingness to participate. To be included in the study, both parties of a given supervisory dyad needed to agree independently to participate. This inclusion rule minimized the risk that a supervisor might coerce his or her trainee's involvement in this project.

Two hundred and twenty–two individuals were asked to participate. Of these, 117 responded affirmatively, 22 declined, and 83 did not respond. From those individuals who agreed to participate, 64 supervisory dyads were produced from independent affirmative responses from supervisors and trainees. (It was possible to get 64 dyads from 117 respondents because in some cases the same person functioned in one dyad as supervisee and in another dyad as supervisor.) The 64 dyads were drawn from 22 colleges and universities. All were from institutions within the United States with the exception of one which was from Canada.

The following materials were sent to trainees and supervisors who agreed to participate: (a) the Supervisee Research Questionnaire (to the trainee), (b). the Supervisor Research Questionnaire (to the supervisor), (c) a blank 90 minute audio tape (to the dyad). The instructions and pre–stamped envelopes were provided. Participants were asked to audiotape their supervision session and then to complete the questionnaires individually, and immediately following the supervision session.

Fifty dyads returned completed questionnaires and audiotapes. Of these, six were eliminated because one or both members of the dyad provided incomplete information or the tape was found to be inaudible--reducing the final N to 44 supervision dyads representing 21 institutions.

Transcribing and coding tapes. Fifteen minute segments of each audiotaped supervisory session were transcribed by members of an ongoing research group of graduate students. Each transcription began at a point 20 minutes into the session. Empirical support for utilizing only a segment of the audiotaped session, versus the entire session, is provided by Friedlander, Ellis, Siegel, Raymond, Haase, and Highlen (1988). Empirical support for ICRS coding from transcripts and audiotapes instead of videotapes is provided by Tracey and Guinee (1990).

Session transcriptions were coded according to the procedures and criteria of the ICRS training manual (Strong, et al. 1988). Training of raters also was done according to directions given in the training manual. Training materials included excerpts from previously transcribed supervision tape (Goodyear (1982 [also see Bernard & Goodyear, 1990]; Abadie, 1985 [later refined by Holloway, Freund, Gardner, Nelson, & Walker, 1989]).

Coders for the ICRS system were one male and six females (mean age =31) who were doctoral students in their first year of graduate study in counseling psychology. They participated in a three month training course that included weekly meetings. The course began with a review of the Strong training videotape and transcripts (1988). Excerpts from transcribed supervisory sessions other than those obtained from actual data were used for training (see above).

After a mean between–coder reliability of kappa=. 71 was achieved, the coders were divided into three groups. Two groups received 16 separate transcripts, and one group received 15 transcripts. Each group member was asked to code each transcript separately. After completing every fifth transcript, the group met to decide on a final code for each transcription unit. When there were between–coder differences for a particular unit of behavior, discussions continued until a consensus rating was achieved.

Analyses

Exploratory stepwise multiple regression analyses of the client and counselor factors contributing to supervisory structure (response redundancy) were conducted. Based on previous theorizing (e.g., Stoltenberg & Delworth, 1987) and research (e.g., Tracey, et al., 1989), it was expected that supervisor and supervisee anxiety, and supervisee skill and experience individually and additively would contribute to the prediction of the response structure of supervisory sessions. In this first analysis, redundancy was the dependent variable; and the predictor variables included: (a) the experience level of the supervisor, (b) supervisor and supervisee ratings of supervisee technical and conceptual competence and personal awareness in dealing with the client's issue(s), (c) supervisor and supervisee self-reported anxiety about dealing with client's problem(s) and with each other, and (d) supervisor and supervisee ratings of

the severity of the client's impairment. Similar additional regression analyses of supervisor and supervisee contributions to the session structure were run using the same predictor variables.

ANOVA's were run to determine whether the degree of response patterning (redundancy) within supervisory sessions was influenced by either the sex of the supervisor or the supervisee or their pairing within the dyads. A 2x2 chi square analysis was conducted to examine the relationship between supervisor/supervisee gender pairings (same sex vs. mixed-sex) and which of the interactants more strongly influenced supervisory session structure (supervisor vs. supervisee). A similar analysis was conducted focusing only on supervisor sex (female vs. male) as it related to influence over session structure.

Finally, a discriminant function analysis of was conducted to investigate whether a linearly weighted combination of selected variables (supervisor/supervisee anxiety about the client and about the supervision session, supervisee technical and conceptual competency and personal awareness, perceived client impairment, and supervisor experience) could discriminate which of the two interactants (supervisor or supervisee) showed the greater influence over the supervision session.

For the secondary analyses, Pearson correlations were computed to investigate the relationship between supervision structure and SEQ depth and smoothness ratings by supervisors and supervisees of their supervisory session together. To study the effect of participant (supervisor/supervisee) influence over the structure of the supervision on the participants' ratings of session quality, supervisor and supervisee SEQ depth and smoothness ratings were analyzed using separate ANOVAs with participant influence (supervisor vs. supervisee) serving as the independent variable in each analysis.

Results

Table 1 summarizes the descriptive statistics on the variables focused upon in this study, and Table 2 summarizes the bivariate correlations among these variables.

Insert Tables 1 and 2 about here

With respect to the client and counselor factors contributing to prediction of the degree of structure (response redundancy) within the supervisory sessions, none of the predictor variables contributed uniquely or significantly to the prediction of supervision structure.

The same predictor variables used above were used in stepwise multiple regressions to predict (a) the supervisors' and (b) the supervisees' contribution (or lack thereof) to the structure of supervisory sessions. Using the index of supervisee response ambiguity as the measure of supervisor contribution to session structure (the more ambiguity in the supervisees' responding, the less influence the supervisor had on the structure of the session), the analysis showed that only supervisee anxiety about the client was uniquely and significantly related to the supervisor's contribution to supervision structure. Specifically, a positive relationship was found between supervisee anxiety about the client and the supervisees' response ambiguity (Multiple R = .31, $p<.05$), accounting for approximately 10% of the variance in the response ambiguity variable. Thus, the more anxious the supervisee was about the supervision session, the less influential the supervisor over the structure of the supervisory session (i.e., the more ambiguous the supervisees' responding during the session). Using the index of supervisor response ambiguity as the measure of supervisee contribution to session structure (the more ambiguity in the supervisor's responding, the less influence the supervisee had on the structure of the session), the analysis showed that none of the designated predictor variables was uniquely and significantly related to supervision structure.

Recalling that the difference between the response ambiguity indices of the supervisor and supervisee may be used to determine the relative influence each has over the structuring of the supervisor interaction (a positive difference suggesting that the supervisee's responding was less predictable than that of the supervisor and that the supervisee had more influence over the structure of the session than did the supervisor; and the reverse being true if the resulting difference score is negative), the same predictor variables of supervisor/supervisee anxiety (about the client and about supervision), ratings of supervisee skill and client impairment, and supervisor experience were used to predict the difference between the supervisor and supervisee indices of response ambiguity. The regression analysis showed that only the supervisee's anxiety

about the supervision contributed to prediction of the difference between supervisor and supervisee response ambiguity indices (Multiple R = .30, $p<.05$), accounting for approximately 9% of the variance in the supervisor/supervisee response ambiguity differential. The positive correlation suggests that the greater (i.e., more positive the difference in the two ambiguity indices [the more influential the client]) the greater the supervisee's anxiety about the supervision. Conversely, supervisee's were less anxious about the supervision when the supervisor was the more influential.

The 2-way ANOVA run to determine whether the degree of response patterning (redundancy) within supervisory sessions was influenced by the sex of the supervisor or supervisee or their interaction revealed no significant main effect for supervisor sex, $F(1, 40) = 3.38$, NS. or for supervisee sex, $F(1, 40) = .03$, NS. Neither was there a significant supervisor sex by supervisee sex interaction effect, $F(1, 40) = 2.23$, NS.

Insert Table 3 about here

The 2x2 chi square analysis conducted to examine the relationship between supervisor/supervisee gender pairings (same sex vs. mixed-sex) and which of the interactants (supervisor vs. supervisee) more strongly influenced supervisory session structure was not significant, c^2 (1, N= 44) = .38, NS. The chi-square analysis focusing only on supervisor sex as it related to influence over session structure, however, was significant, c^2 (1, N=44) = 5.78, $p<.05$. Analysis of the table (see Table 5) revealed that when the supervisor was male, the influence over the structure of the supervision session was likely to be attributed to the supervisor; and when the supervisor was female, the structure of the supervision session was more likely attributed to the supervisee.

Insert Tables 4 and 5 about here

Finally, the discriminant function analysis conducted to investigate whether the composite of variables (supervisor/supervisee anxiety, supervisee technical and conceptual competency and personal awareness, perceived client impairment, and supervisor experience)

could discriminate which of the two interactants (supervisor or supervisee) could discriminate between supervisor vs. supervisee influence over supervision sessions produced a single significant discriminant that resulted in 70% of the supervision dyads being correctly classified in terms of the individual (supervisor/supervisee) who contributed more to the overall structure of the supervisor interaction. Variables that contributed most to the function included supervisor anxiety about the client, the supervisee's anxiety about the supervision session with the supervisee, and the supervisee's self-reported rating of personal awareness.

With regard to the secondary analyses, supervisor and supervisee ratings of session depth and smoothness seemed unrelated to session structure or to relative influence the supervisor and supervisee had on session structure (see Table 2). Session structure (redundancy) correlated r = .01, NS with supervisor's ratings of session depth and r =.20, NS with ratings of session smoothness. For supervisees, session structure correlated r =.00, NS with ratings of session depth and r =-.09, NS with ratings of session smoothness. Who (supervisor or supervisee) was the more influential over supervision structure did not appear related to either the supervisor ratings of session depth, $F(1,42) = .45$, NS, or smoothness, $F(1,42) = .46$, NS; nor was it related to supervisee ratings of session depth, $F(1,42) = 2.61$, NS, or smoothness, $F(1,42) = 2.31$, NS.

Discussion

In an earlier and seminal study of the interactional structure of supervision interviews, by Holloway (1982) argued that "certain repetitive patterns of verbal behavior occur in the supervisory interview" (p. 309). In the present study, these "repetitive patterns" were quantified in terms of the redundancy in the verbal interaction (specifically, the interpersonal communicative behaviors; Strong, Hills & Nelson, 1988) of supervisors and supervisees in actual supervision sessions. This quantification of the repetitiveness in the verbal interaction between supervisor and supervisee in turn served as our index of the "structure" of the supervision--a variable that Tracey et al. (1989) have identified in supervision theory (e.g., Stoltenberg & Delworth, 1987) as one of the most important dimensions for enhancing counselor growth.

In contrast to some other studies of interpersonal communication--whether within supervision (e.g., Holloway, 1982; Holloway, Freund, Gardner, Nelson, & Walker, 1989) or

counseling (e.g., Lichtenberg, 1985; Lichtenberg & Knox, 1991; Lichtenberg & Paolo, 1985; Lichtenberg & Tyndall, 1985; Tracey & Hayes, 1989), no attempt was made to investigate any particular pattern of responding among the various ICRS response categories; rather focus was specifically on the amount of patterning inherent in supervisor-supervisee interaction and on variables that appeared to have some promise for predicting this structure.

Further, building on Holloway's (1982) assertion that "little empirical attention has been given to the reciprocal influence that occurs between supervisor and trainee" (p. 309), and recognizing the mutual and reciprocal impact that supervisors and supervisees have on each other's behavior and thus on the structure of their interaction, the present study also sought to investigate variables that might contribute to an understanding of who (supervisor vs. supervisee) has the greater influence over supervision session structure.

Previous theorizing (e.g., Stoltenberg & Delworth, 1987) and research (e.g., Tracey, et al., 1989) have suggested that trainees desire more structure in conditions of greater anxiety (e.g., when the context of counseling arouses anxiety, when the client presents "in crisis," when the trainee/supervisee is relatively inexperienced). Therefore, it was expected that supervisee anxiety about working with the client and the supervisor, perceptions of client impairment (client "crisis"), and their view of their own technical and conceptual skills as a counselor would contribute to the prediction of the response structure of supervisory sessions. Specifically, it was expected that greater supervisee anxiety about (a) the client and/or about the supervision and (b) the degree of impairment (problem severity) perceived in the client, and supervisee perceptions of themselves as relatively inexperienced in terms of conceptual, technical and personal awareness skills would lead to an increase in supervisory structure. Additionally, it was expected that supervisor evaluations of client impairment and supervisee skill, as well as their own anxiety about the supervisee's client and about providing supervision also would contribute to supervision structure.

Contrary to expectations, supervision structure was virtually unrelated to any of these variables. Indeed, although there exist no normative data on supervision structure, it was surprising to find the mean index of redundancy to be on .34 -- suggesting the supervisory

sessions to be only one-third as structured as they might be. This may be a function of the variability in the number of supervision sessions the supervisor and supervisee had together prior to the completion of their research questionnaires as a part of their participation in the study (M = 19.75, SD = 14.10). At the same time, given the length of time the supervisor and supervisee had already spent together --which for a number of the dyads was considerable (median number of sessions = 17; range = 3-65; mode = 12), it might seem reasonable that more patterning in their interaction would have been established. Nevertheless, to the extent that the supervisee was not new to counseling or to supervision (i.e., not inexperienced), supervisee need or desire for structure and/or supervisor need or desire to provide it may have been abated.

While supervision structure (whatever its degree) is inherently a function of the responding of both the supervisor and the supervisee, the relative degree of supervision structure created by the responding of the supervisor and supervisee may be a point of issue. Haley (1963) noted that when two people (e.g., supervisor and supervisee) interact, a wide range of behavior is potentially available between them. From all the possible exchanges, they select certain kinds and reach agreement as to what are appropriate or acceptable behavior to exchange within their relationship. Any two people are posed with the mutual problems of deciding (a) what sorts of behavior are to take place in their relationship and (b) who is to decide what is to take place and thereby control the definition of the relationship. Supervision is not different. However, although a case is generally made that therapists should be in control of the definition of the therapy relationship (e.g., see Claiborn & Lichtenberg, 1989; Haley, 1963), it is not clear that this should be or need be the case in supervision.

Among the supervisory dyads, the proportions of supervisors and supervisees who evidenced the greater influence over the supervisory structure were nearly equal (supervisors: N=21, 47.7%; supervisees: N=23, 52.3%). The significant discriminant function was determined using the various supervisor and supervisee ratings of anxiety, supervisee skill and personal awareness, client impairment, and supervisor experience, resulted in classifying 70% of the supervisory dyads "correctly" -- a gain in predictability not remarkable greater than the 50:50 chance classification rate. At least as effective as simply knowing whether the supervisor was

male or female--with male supervisors tending to characterize the dyads in which the supervisor evidenced the greater influence over the supervision structure. This finding is similar to that of Heatherington and Allen (1984) who found male counselors to be more the dominant in counseling sessions, regardless of the sex of the client.

Although developed and intended for use with counseling dyads, the Session Evaluation Questionnaire (SEQ) seemed a reasonable measure for evaluating the qualities of the supervision session (specifically session depth and smoothness) as they might be related to structural and influence characteristics of the sessions. No relationships were found, however, between the qualitative and structural indices of the supervision sessions.

Overall, session structure--indexed in terms of the redundancy or degree of patterning in the verbal interpersonal responses of supervisors and supervisee--seemed relatively affected by or related to supervisor experience, supervisor/supervisee anxiety, client impairment, or supervisee conceptual, technical or personal awareness skills as a counselor. This was surprising in light of previous literature (theory and research) on variables that would likely contribute to the need for supervision structure experienced by supervisees and that could reasonably be thought to lead supervisors to create or impose structure within supervision sessions. Too, given that within the supervision dyads, supervisors and supervisees were reasonably experienced with one another, it was surprising that more structure--reflecting the establishment of relational rules (see Claiborn & Lichtenberg, 1989; Penman, 1980)--was not apparent.

Recalling Holloway and Hosford's (1983) argument that supervision research should proceed through the stages of (a) descriptive observation of supervision, (b) identification of relevant supervision variables (and relationships among them), and (c) development of theory based on the empirically derived evidence about the variables and their relationships, this study addressed itself specifically to points (a) and (b). With respect to (a), it is possible that structure as defined and operationalized in the present study is not a reasonable description of "structure" as it is has been observed and then characterized in the supervision theory. Specifically, if supervisory "structure" simply means supervisor "directiveness," then the index of interactive response patterning and redundancy is not an adequate measure--although the variables of

supervisor/supervisee anxiety, supervisee skill, etc. may be related to this aspect "directive" aspect of supervision. Still, the structure of the interaction as a measure of the supervisory relationship makes sense to us; and at least conceptually, it would seem to be related to at least some of the factors included in this study.

Suffice it to say, further clarification of what is meant by "structure" seems needed; and research related to the identification of relevant supervision variables and on the relationships among them--especially as they relate to the structuring of the supervisory process--seems warranted and a necessary step toward the development of an empirically grounded supervision.

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Table 1

Means and Standard Deviations of the Supervisor/Supervisee Questionnaire Ratings and Structure Variables

	Variable	Mean	Std. Dev
1.	Redundancy	.34	.06
2.	Supervisor ambiguity	1.30	.36
3.	Supervisee ambiguity	1.37	.26
4.	Ambiguity difference	.08	.42
5.	Supervisor age	39.30	8.84
6.	Supervisee age	30.37	9.45
7.	Years supervising	7.61	5.90
Supervisor ratings of			
8.	S'visee's concept. skill	4.93	.97
9.	S'visee's tech. skill	4.98	1.02
10.	S'visee's pers. awareness	5.55	1.28
11.	Client impairment	4.45	1.07
12.	Own anxiety re client.	4.59	1.35
13.	Own anxiety re supervision	2.95	1.38
14.	SEQ depth	5.00	.63
15.	SEQ smoothness	5.15	1.08

Table 1 (cont.)

Variable	Mean	Std. Dev
Supervisee ratings of		
16. Own conceptual skill	5.25	1.08
17. Own technical skill	5.27	.82
18. Own personal awareness	5.84	1.01
19. Client impairment	4.59	1.45
20. Own anxiety re client	4.98	1.39
21. Own anxiety re supervision	3.50	1.53
22. SEQ depth	4.94	.71
23. SEQ smoothness	5.16	1.18

Table 2

Correlations Among Supervisor/Supervisee Questionnaire and Structure Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Redundancy	1.00													
2. Supervisor ambiguity	.76**	1.00												
3. Supervisee ambiguity	-.51**	.09	1.00											
4. Ambiguity difference	.33*	-.79**	.65**	1.00										
5. Supervisor age	-.01	-.06	.25	.20	1.00									
6. Supervisee age	.31	-.13	-.30	-.39	.20	1.00								
7. Years supervising	-.01	.01	.10	.00	-.42**	.10	1.00							
Supervisor ratings of														
8. S'visee's concept. skill	-.00	-.06	-.08	-.06	.13	.07	.21	1.00						
9. S'visee's tech. skill	.03	-.06	-.04	.04	.13	-.06	.24	.77**	1.00					
10. S'visee's pers. awareness	-.18	.12	-.15	-.19	.13	-.15	.23	.64**	.56**	1.00				
11. Client impairment	-.02	.02	-.18	-.13	.08	.05	.12	.30*	.44**	.53**	1.00			
12. Own anxiety re client.	.04	-.10	-.11	.02	-.24	-.20	.36	.11	.02	.15	.24	1.00		
13. Own anxiety re supervision	-.17	.19	.09	-.10	.15	-.28	-.18	-.16	0.06	.02	.04	.13	1.00	
14. SEQ depth	.01	-.01	.09	.06	-.03	-.00	.17	.10	.05	.05	-.04	.31*	.38*	1.00
15. SEQ smoothness	-.20	-.00	.18	.12	.24	-.12	.37*	.26	.32*	.42**	.17	.05	.49**	.45*

Table 2 (cont.)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Supervisee ratings of														
16. Own conceptual skill	-.17	.10	.06	-.05	.12	.03	.14	.37*	.32*	.33*	.20	.34*	.09	.12
17. Own technical skill	-.24	.27	.10	-.17	.19	.02	.29	.26	.26	.25	.28	.20	.10	.36*
18. Own personal awareness	-.14	.16	-.05	-.17	.07	-.10	.20	.30	.31*	.52**	.13	.29	.09	.19
19. Client impairment	-.16	.20	.13	-.09	.14	.33*	-.09	-.05	-.08	-.06	.08	0.08	-.16	.08
20. Own anxiety re client	-.23	.04	.31*	.15	.18	-.41	.29	.21	-.21	-.11	.08	-.01	.48**	.19
21. Own anxiety re supervision	.14	-.21	.17	.29	-.11	.04	-.27	-.27	-.22	-.22	.13	.29	.02	.05
22. SEQ depth	.02	-.14	-.03	.10	.24	.07	.33*	.35*	.31*	.48**	.35*	.12	.04	.17
23. SEQ smoothness	-.03	-.06	.25	.21	.18	-.33*	.32*	.27	.39*	.19	.32*	.02	.36*	.23

Table 2 (cont.)

Variable	15	16	17	18	19	20	21	22	23
Supervisee ratings of									
16. Own conceptual skill	.26	1.00							
17. Own technical skill	.19	.66**	1.00						
18. Own personal awareness	.27	.72**	.59**	1.00					
19. Client impairment	-.13	.04	.17	.00	1.00				
20. Own anxiety re client	.33*	.07	.21	-.07	-.17	1.00			
21. Own anxiety re supervision	-.20	-.16	-.17	-.16	.33*	.02	1.00		
22. SEQ depth	.29	.30	.16	.35*	-.14	-.01	-.07	1.00	
23. SEQ smoothness	.38*	.26	.33*	.21	-.28	.55**	.06	.40**	1.00

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Table 3

2 (Supervisor) x 2 (Supervisee) ANOVA Source Table for Supervision Structure (Redundancy)

Source of Variation	SS	df	MS	F
Main Effects				
Supervisor sex	.000	1	.000	.034
Supervisee sex	.012	1	.012	3.384
2-way interactions				
Supervisor sex x Supervisee sex	.008	1	.008	2.232
Explained	.019	3	.006	1.874
Residual	.136	40	.003	
Total	.156	43	.004	

Table 4

Contingency Table for Dyad Sex Pairing (Same vs. Mixed) x Supervision Structure Influence (Supervisor vs. Supervisee)

Person Influencing the Supervision	Dyad Sex Pairing		
	Same	Mixed	Row Total
Supervisor	9	12	21 (47.7%)
Supervisee	12	11	23 (52.3%)
Column Total	21 (47.7%)	23 (52.3%)	

χ^2 (1, N=44) = .38, NS

Table 5

Contingency Table for Supervisor Sex (Female vs. Male) x Supervision Structure Influence (Supervisor vs. Supervisee)

Person Influencing the Supervision	Supervisor Sex		
	Female	Male	Row Total
Supervisor	7	14	21 (47.7%)
Supervisee	16	7	23 (52.3%)
Column Total	23 (52.3%)	21 (47.7%)	

χ^2 (1, N=44) = 5.78, $p<.05$